NIJ

OFFICE OF SCIENCE & TECHNOLOGY

Flying Plate Disrupter

Project Description:

Explosive devices are a primary tool of terrorists. Large explosive devices such as ammonium nitrate fuel mixtures in 55-gallon drums are a particularly challenging problem. The National Institute of Justice is sponsoring the Naval Surface Warfare Center's Indian Head Division to develop and demonstrate a solution to this problem using explosively propelled slugs, or "flying plates". Derived from military technology that was developed for breaching and destroying armored vehicles, this system consists of a plastic cylinder capped by a 3 inch to 6 inch diameter copper plate, and packed with a small explosive charge. When that charge is detonated, the plate is deformed into a slug and propelled into the explosive device, scattering the explosive material without detonation.

Disrupter

Surrogate 55-gal. Device

Status Report:

Prototype design and development was completed in 1999. NIJ funded a successful demonstration with the FBI-sponsored, Kansas Missouri Bomb Technician Working Group, which was completed in August 2000. Recommendations arising from that demonstration are being incorporated into a revised design that will be tested in early 2003. Commercialization alternatives for this technology are being explored.

Contact Information:

Chris Tillery
Project Manager
Tel.: 202 305 - 9829
E-mail: tilleryg@ojp.usdoj.gov